

## Claims

- [c1] 1.A flexible source wire for radiation treatment of diseases within a body comprising:
- a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material exhibiting little or no memory retention when bent;
  - a flexible backbone wire having a proximal end, said proximal end of said wire being disposed in said housing tube; and
  - a radiation source or sources provided within said housing tube, said proximal end of said flexible backbone wire being adjacent to said radiation source or sources.
- [c2] 2.The flexible source wire in accordance with claim 1 further including a plug which is sealed to said proximal end of said housing tube.
- [c3] 3.The flexible source wire of claim 1, wherein said radioactive source is encapsulated within a neutron permeable material.
- [c4] 4.The flexible source wire of claim 1, wherein said radioactive source is included within a thin walled-capsule.
- [c5] 5.The flexible source wire in accordance with claim 1, wherein said backbone wire is completely disposed in said housing tube.
- [c6] 6.The flexible source wire in accordance with claim 1 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.
- [c7] 7.The flexible source wire in accordance with claim 4 wherein at least one end of said capsule is rounded.
- [c8] 8.The flexible source wire in accordance with claim 3 wherein at least one end of said encapsulated radioactive source or sources is rounded.
- [c9] 9.The flexible source wire in accordance with claim 1 wherein said backbone

wire is affixed to the interior wall of said flexible housing tube at one or more locations.

- [c10] 10. The flexible source wire in accordance with claim 1, wherein said backbone wire includes a distal end, and wherein said distal end is disposed within said tube.
- [c11] 11. The flexible source wire in accordance with claim 1 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.
- [c12] 12. The flexible source wire in accordance with claim 13 wherein said non-oxidizing agent is gold.
- [c13] 13. A flexible source wire for radiation treatment of diseases within a body comprising:  
a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material exhibiting little or no memory retention when bent;  
a flexible backbone wire having a proximal end, said proximal end of said wire inserted into said tube; and  
a radiation source or sources provided within said housing tube, said proximal end of said flexible backbone wire being adjacent to said radiation source or sources.
- [c14] 14. The flexible source wire in accordance with claim 13 further including a plug, which is sealed to said proximal end of said housing tube.
- [c15] 15. The flexible source wire in accordance with claim 13 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.
- [c16] 16. The flexible source wire in accordance with claim 13 wherein at least one end of said capsule is rounded.
- [c17] 17. The flexible source wire in accordance with claim 13, wherein said

backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c18] 18.The flexible source wire in accordance with claim 13 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c19] 19.The flexible source wire in accordance with claim 18 wherein said non-oxidizing agent is gold.

[c20] 20.The flexible source wire of claim 13, wherein the radioactive source is encapsulated within a neutron permeable material.

[c21] 21.The flexible source wire of claim 13, wherein the radioactive source is included within a thin-walled capsule.

[c22] 22.The flexible source wire in accordance with claim 13, wherein said backbone wire is completely inserted in said housing tube.

[c23] 23.The flexible source wire of claim 13, wherein the backbone wire includes a distal end, and wherein the backbone wire is completely inserted such that the distal end is disposed within the tube.

[c24] 24.A flexible source wire for radiation treatment of diseases within a body comprising:  
a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material exhibiting little or no memory retention when bent;  
a flexible backbone wire having a proximal end, said proximal end of said wire inserted into said tube;  
a capsule inserted into said proximal end of said flexible elongated housing tube;  
a radiation source or sources inserted into said capsule; and  
a plug which seals said proximal end of said housing tube.

[c25] 25.The flexible source wire in accordance with claim 24 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a

tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.

[c26] 26.The flexible source wire in accordance with claim 24 wherein at least one end of said capsule is rounded.

[c27] 27.The flexible source wire in accordance with claim 24 wherein said backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c28] 28.The flexible source wire in accordance with claim 24 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c29] 29.The flexible source wire in accordance with claim 28 wherein said non-oxidizing agent is gold.

[c30] 30.The flexible source wire in accordance with claim 24, wherein said backbone wire is completely disposed in said housing tube.

[c31] 31.The flexible source wire of claim 24, wherein the backbone wire includes a distal end, and wherein the backbone wire is disposed completely within the tube such that the distal end is disposed within the tube.